REMARKS

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The office action and prior art again relied upon have been carefully considered. Applicant wished to thank Examiner Robinson for the interview held on September 11, 2007. The following comments will summarize the discussion had during the interview.

Attached to this Amendment is an Addendum which was a working paper that was faxed to the Examiner in preparation of the aforementioned interview.

Claim 1 has been amended so as to more clearly define the structural distinctions between the cited prior art and the presently claimed invention. Thus, the Amendment specifies that the inductor has its windings traversed by the strip and deflectors are positioned on both longitudinal edges of the strip covering the edges thereof. This positioning of the windings is shown by reference numeral 6 in Fig. 3. The deflectors are generally U-shaped and are shown covering the longitudinal sides of strip 1, the deflectors being denoted by 7 and 7'.

For the following reasons, the Examiner rejection of claims 1 and 4 under 35 U.S.C. § 103 has been overcome. In his rejection, the Examiner again relies on Couffet (USP 5,397,877) in view of Maeyama (USP 6,195,525).

Reviewing the Figs. 1 and 2 of Couffet, it is clear that the windings 14 and 14' are positioned above and below the metal strip to be heated and they are not traversed by the strip as the claims currently clearly require. Couffet makes this positioning of the coils quite clear in column 2, lines 40-46 of the patent.

The secondary reference to Maeyama was cited for its supposed showings of deflectors. However, this patent does not define deflectors as clearly set forth in the current amendment. Rather, Maeyama shows in Fig. 1(a) a magnetic core 3 and a movable core 5, both being positioned above a metallic strip being heated.

At the conclusion of the aforementioned interview, the Examiner appreciated the distinctions between the amended claims and the cited references. However, he reserved the right to review the Amendment as currently submitted and to update his search before deciding on the allowability of the amended claims.

In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185, under Order No. 21029-00280-US from which the undersigned is authorized to draw.

Dated: September 13, 2007

Respectfully submitted,

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Attachments: Addendum

Addendum

SN 10/509,157
Attorney Docket 21029-280 US
Re: Working Paper for September 11, 2007 Interview

Proposed Amendments to Application

1. (Currently Amended) An induction heating system for heating metal strips, using a longitudinal magnetic flux, the heating system comprising: an inductor ~~surrounding~~ having its windings traversed by the strip; and two magnetic field deflectors located inside ~~coils~~ windings of the inductor, the deflectors being positioned on longitudinal edges of the strip and covering the edges the shape and arrangement of the deflectors masking the inductor coils at the edges of the strip .

2. (Previously Presented) The heating system as claimed in claim 1, wherein the deflectors are U-shaped, with branches covering the edges of the strip to be heated.

3. (Previously Presented) The heating system as claimed in claim 1, wherein the deflectors are positioned along all or part of the length of the inductor.

4. (Currently Amended) The heating system as claimed in claim 1, together with U-shaped screens located inside the inductor and having ends which are shaped so as to increase their effectiveness.

Fig 3 of The Present Application

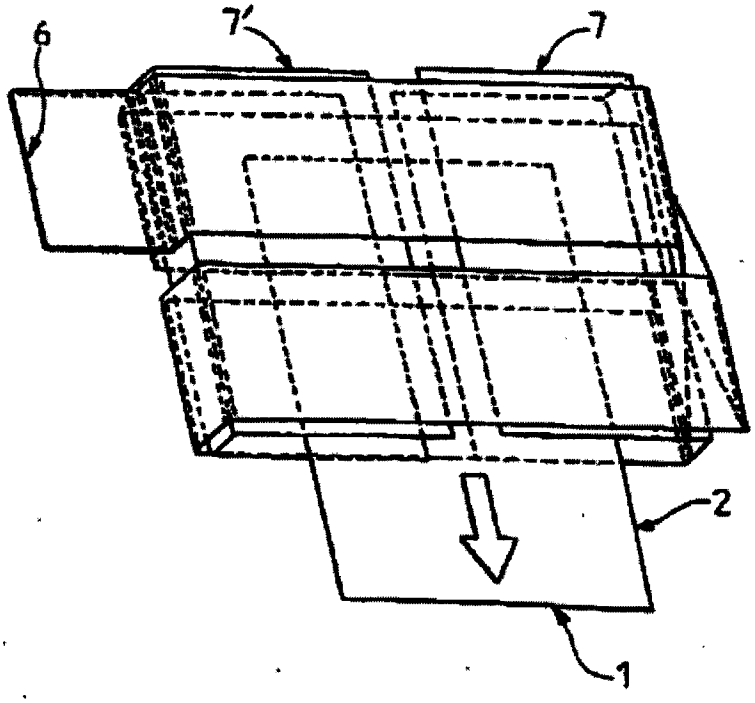


FIG. 3

Extracts From the Spec of the Application

35

Referring to figure 3, the reference numeral 6 denotes the heating inductor generating a longitudinal magnetic flux, inside which the strip 1 to be heated runs continuously.

As claimed in the invention, two magnetic field deflectors, respectively 7 and 7', which are designed and positioned so as to mask, over all or part of the length of the inductor, the coils of the latter at the edges 2 of the strip to be heated, are introduced inside the inductor, between its coils, as can be seen clearly in figure 3. These deflectors therefore screen the magnetic field of the inductor, causing underheating of the edges.

In the exemplary embodiment illustrated by figure 3, the deflectors 7 and 7' are U-shaped with the branches covering the edges 2 of the strip 1.

Couffet Figs 1 and 2 Showing Coils 14-14'

FIG. 1

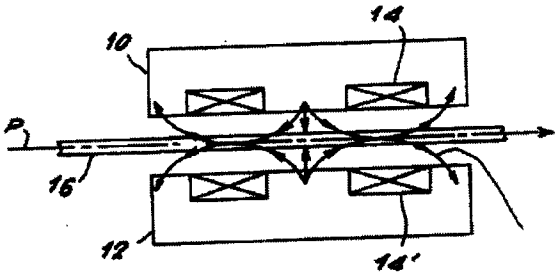
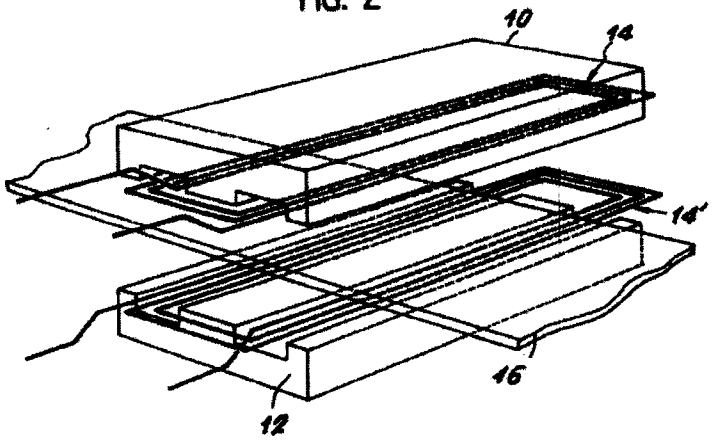


FIG. 2



Couffet Col 2 of Patent

INVENTION

Referring to the drawings, and more particularly to FIGS. 1 and 2, it may be seen that the induction heating device according to the present invention comprises, in this non-limiting embodiment, two magnetic armatures, respectively 10 and 12, provided with electrical coils such as 14, 14', these armatures being placed on either side of the large faces of the product 16 to be heated.

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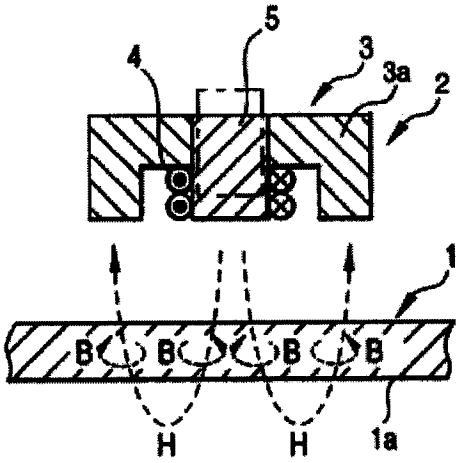
FIG. 1 (a)



Maeyama Col 2

That is, as shown in FIG. 1(*a*), in an electromagnetic induction heating device **2** which heats an object to be heated **1** which has at least an electromagnetic induction heat generating layer **1***a*, the improvement is characterized in that the heating device **2** includes a magnetic core **3** made of magnetic material which is disposed in an opposed manner toward an electromagnetic induction heat generating layer **1***a* of the object to be heated **1** and an exciting coil **4** which is wound around this magnetic core **3** and generates a fluctuation magnetic field H which penetrates the electromagnetic induction heat generating layer **1***a*, and a movable core **5** which can move relative to the object to be heated **1** and can change the intensity of the fluctuation magnetic field H which penetrates the electromagnetic induction heat generating layer **1***a* is provided to at least a portion of the magnetic core **3**.